



AF Lyu

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TRANSMITTAL FORM

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Total Number of Pages in This Submission

37

Application Number	09/943,786
Filing Date	August 31, 2001
First Named Inventor	Michel Shane Simpson
Art Unit	2162
Examiner Name	Anh Ly

Attorney Docket Number

1363-007

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
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	Remarks	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

KING & SCHICKLI, PLLC

Signature

Printed name

MICHAEL T. SANDERSON

Date

1-30-07

Reg. No.

43,082

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January 30, 2007

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**FEE TRANSMITTAL
for FY 2005**

Effective 10/01/2004. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$ 500.00)**Complete if Known**

Application Number	09/943,786
Filing Date	08/31/2001
First Named Inventor	Michel Shane Simpson
Examiner Name	Ly, Anh
Art Unit	2162
Attorney Docket No.	1363-007

METHOD OF PAYMENT (check all that apply)
 Check Credit card Money Order Other None
 Deposit Account:

Deposit Account Number	11-0978
Deposit Account Name	KING & SCHICKLI, PLLC

The Director is authorized to: (check all that apply)

-
- Charge fee(s) indicated below
-
- Credit any overpayments
-
-
- Charge any additional fee(s) or any underpayment of fee(s)
-
-
- Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION**1. BASIC FILING FEE**

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1001 790	2001 395	Utility filing fee	
1002 350	2002 175	Design filing fee	
1003 550	2003 275	Plant filing fee	
1004 790	2004 395	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1) (\$)			

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X =	=
Independent Claims	- 3** =	X =	=
Multiple Dependent			=

Large Entity	Small Entity	Fee Description
Fee Code (\$)	Fee Code (\$)	
1202 18	2202 9	Claims in excess of 20
1201 88	2201 44	Independent claims in excess of 3
1203 300	2203 150	Multiple dependent claim, if not paid
1204 88	2204 44	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2) (\$)		

**or number previously paid, if greater; For Reissues, see above

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 430	2252 215	Extension for reply within second month	
1253 980	2253 490	Extension for reply within third month	
1254 1,530	2254 765	Extension for reply within fourth month	
1255 2,080	2255 1,040	Extension for reply within fifth month	
1401 340	2401 170	Notice of Appeal	
1402 340	2402 170	Filing a brief in support of an appeal	500.00
1403 300	2403 150	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,370	2453 685	Petition to revive - unintentional	
1501 1,370	2501 685	Utility issue fee (or reissue)	
1502 490	2502 245	Design issue fee	
1503 660	2503 330	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 790	2809 395	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 790	2810 395	For each additional invention to be examined (37 CFR 1.129(b))	
1801 790	2801 395	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	
Other fee (specify) _____			

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 500.00

(Complete if applicable)

SUBMITTED BY			
Name (Print/Type)	MICHAEL T. SANDERSON	Registration No. (Attorney/Agent)	43,082
Signature	<i>michael t. sanderson</i>		
	Date	1-30-07	

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ocket No. 1363-007

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :
MICHEL SHANE SIMPSON et al. :
Serial No.: 09/943,786 : Examiner: Anh Ly
Group Art Unit: 2162
Filed: August 31, 2001 :
For: METHOD AND APPARATUS FOR PRESENTING, SEARCHING, AND
VIEWING DIRECTORIES

APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

Responsive to the Office Action of October 2, 2006, the Applicant hereby appeals the at least twice rejection of claims 21-41. A Notice of Appeal was earlier filed on December 14, 2006, and received by the Patent Office on December 18, 2006 (according to the date stamp of the return-receipt postcard), along with the appropriate \$500.00 Notice of Appeal fee under 37 C.F.R. §§41.20(b)(1). A fee transmittal indicating payment of the appropriate \$500.00 Appeal Brief fee, set forth under 37 C.F.R. §§41.20(b)(2), also accompanies this brief. It is believed no other fees are due and the brief is timely filed. In accordance therewith, the Appellant submits the following:

02/06/2007 LWONDIM1 00000011 110978 09943786

01 FC:1402 500.00 DA

Application Serial No. 09/943,786
Appeal Brief dated January 30, 2007
Reply to Office Action dated October 2, 2006

I. Real Party in Interest

The real party in interest is Novell, Inc., a corporation of the State of Delaware, having a principal place of business at 1800 South Novell Place, Provo, Utah 84606.

II. Related Appeals and Interferences

The Appellant knows of no other prior or pending appeals, interferences, or judicial proceedings, which may be related to, directly affect, or be directly affected by, or have a bearing on, the Board's decision in this Appeal.

III. Status of Claims

Claims 21-41 are pending. Claims 1-20 have long ago been cancelled.

Claims 21-27 and 32-36 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Claims 21 and 32 are rejected under 35 U.S.C. §112, second paragraph, for having “insufficient antecedent basis” for the limitation “the directory classes of two or more disparate directories.” *10-02-06 Office Action, p. 2, final ¶.*

Claims 21-35 and 37-41 are rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,470,332 to Weschler in view of U.S. Patent No. 6,260,039 to Schneck et al. Although claim 36 is not mentioned in the Examiner’s obviousness rejection in paragraph 7, page 3, of the 10-02-06 Office Action as also being rejected over Weschler in view of Schneck, the Examiner appears to reject the claim as obvious under the two references on pages 12 and 13 of the Office Action. Therefore, the Appellant will treat claim 36 as being

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rejected along with claims 21-35 and 37-41 as rejected as obvious under the two references. If this is incorrect, the Examiner is invited to make a correction in her Answer.

On appeal, the Appellant traverses the rejection of all pending claims. Claims 21,28, 32 and 37 are independent.

IV. Status of Amendments

No amendment has been filed subsequent to the Office Action dated October 2, 2006 and all previous amendments have been entered. The form of the claims for purposes of appeal are those presented in the Amendment filed by the Appellant on July 7, 2006 (received by the Patent Office on July 10, 2006) and earlier presented for consideration¹ in: 1) an Amendment and Request for Continued Examination (RCE) application filed on April 13, 2005 (received by the Patent Office on April 15, 2005); 2) an Amendment dated September 2, 2005 (received by the Patent Office on September 9, 2005); and 3) a Pre-Appeal Brief Request for Review filed by the Appellant on January 5, 2006 (received by the Patent Office on January 9, 2006). As required, a copy of the claims is included herewith in Appendix form with double-spacing format.

V. Summary of Claimed Subject Matter

Claims 21-41 are pending. Claims 21, 28, 32 and 37 are independent.

The present invention relates broadly to computers, especially methods and apparatus for searching multiple disparate directories with a single, user-formulated query. Each of the claims require the notion that an administrator utility is configurable to associate directory

¹ Other than claim 37 having a minor amendment and renumbering of certain other claims, the form of the claims remains the same.

classes of two or more disparate directories into a single user-searchable category so that users can later search the disparate directories with a single query.² The utility also preferably resides with a directory shell and users search from a directory browser. Searching convenience over the prior art is greatly enhanced.

The genesis for the instant invention stems from the unfulfilled need of a user being able to search multiple disparate directories with a single query of a user-defined category. For example, when two companies A & B join in a merger, each pre-merger company might include a human resources department with a directory listing of all the employees. When searching for information about an employee in one directory, a user would search the “Employee List” directory from company A and the “People Who Work Here” directory from company B. With the instant invention, the user can now search the merged company directory with a single query of a single category, such as “EMPLOYEES,” because of the administrative pre-role that associates the two disparate directories (“Employee List” and “People Who Work Here”) together in an administrator utility.

From the Appellant’s specification, this example is typified as disparate or “different” directories that “potentially have different names for class attributes.” *Appellant’s Specification*, p. 14, l. 27. Representative “Cisco” and “Novell” corporate directories are given as disparate directories, including differing directory classes 51, that are searchable with a single query under an administrator-created user-searchable category 62 having the name “Find All.” *Appellant’s Specification*, p. 8, l. 13 - p. 9, l. 4. In turn, mapping or associating the differing directory classes 51 of the Cisco and Novell directories into a single user-searchable category 62 occurs, for example in a directory shell 60. In one embodiment, the “directory shell is queryable against the categories and category attributes to search and retrieve data of the objects in the directories.” *Appellant’s Specification*, p. 5, ll. 20-22. In

² Of course, each of the independent claims is worded slightly differently than the other and the scope of any given claim is governed by its express language.

another embodiment, the directory shell 60 “includes two aspects: an administrator utility and a directory browser.” *Appellant’s Specification, p. 11, ll. 14-15.* The administrator utility allows the administrator to disable or enable searching on a directory class by various mechanisms, such as checking a box (or not) under an Enabled Column of a table 122, for example. *E.g., Appellant’s Specification, p. 12, l. 30 et seq.* User searching occurs, for example, via a query portion 210 of the directory browser shown as a page 200 in Figure 8. Results of the search are displayed in a variety of panels 220, 230 on the same page. Formats for both the utility and browser are preferably HTML.

In independent claim 21, and consistent with Figures 1, 2, 4 and 8, for example, the below-quoted limitations of the claim, in **bold**, are representatively found in the specification at the parenthetical cite as follows:

21. **A computer system** (“Fig. 1 illustrates an example of a computer system of the present invention.” *Appellant’s Specification, p. 6, l. 24.*), **comprising:**

a directory shell able to reference two or more disparate directories each having a directory class (“A directory shell application 40 runs on the computer ... The directory shell 40 includes references to the directories 10 [e.g., 10a, 10b, 10c] and includes one or more categories.” *Appellant’s Specification, p. 7, ll. 23-26.* Alternatively, the “directory shell 60 comprises one or more directory references 61. Each directory reference 61 is associated with a directory 50 and can include a variety of data specific to the directory 50.” *Appellant’s Specification, p. 8, ll. 23-26.* “One or more directories 50 each have a plurality of directory objects ... [in turn], the directory objects are instantiated from directory classes 51.” *Appellant’s Specification, p. 8, ll. 14-16.*), **the directory class in one of the directories being dissimilar in directory objects and data from the directory class in another of the directories** (The “directories 50 each have a plurality of directory objects ... [in turn],

instantiated from [their own] directory classes 51 ... [in turn, having] a plurality of [their own] class attributes 52 ... Object data 54 populates the class attributes 52 of an instantiated directory object 53.” *Appellant’s Specification, p. 8, ll. 14-20.*);

an administrator utility with the directory shell configurable to associate the directory class in the one of the directories to the directory class in the another of the directories, the result of associating the directory classes being a user-searchable category (The directory shell 40 or 60 “includes two aspects: an administrator utility [page 100, Figure 4] and a directory browser. The administration utility is generally used by the system administrators [for] configuring and managing the directory shell.” *Appellant’s Specification, p. 11, ll. 14-16.* The administrator utility allows the administrator to disable or enable searching on a directory class by various mechanisms, such as checking a box (or not) under an Enabled Column of a table 122, for example. *E.g., Appellant’s specification, p. 12, l. 30 et seq.*); and

a directory browser with the directory shell whereby users can search the directory classes of the two or more disparate directories with a single query of the user-searchable category (The directory shell 40 or 60 “includes two aspects: an administrator utility and a directory browser ... The directory browser, is typically used by end users to search and view directories ...” *Appellant’s Specification, p. 11, ll. 14-17.* The “directory shell is queryable against the categories and category attributes to search and retrieve data of the objects in the directories.” *Appellant’s Specification, p. 5, ll. 20-22.* User searching occurs, for example, via a query portion 210 of the directory browser shown as a page 200 in Figure 8. *Appellant’s Specification, p. 17, ll. 12-15.* Results of the search are displayed in a variety of panels 220, 230 on the same page. *Id.*).

In independent claim 28, and consistent with Figures 1, 2, 4 and 8, for example, the below-quoted limitations of the claim, in **bold**, are representatively found in the specification at the parenthetical cite as follows:

28. A method of searching in a computer system (“Another aspect of the present invention is a method in a computer system.” *Appellant’s Specification*, p. 5, l. 3.), **comprising:**

providing a directory shell with an administrator utility and a directory browser for loading onto a computer (“A directory shell application 40 runs on the computer, which, for example, may have been received by the computer 40 on a computer readable medium or propagated signal.” *Appellant’s Specification*, p. 7, ll. 23-25. The directory shell 40 or 60 “includes two aspects: an administrator utility [e.g., page 100, Figure 4] and a directory browser [e.g., page 100, Figure 8]. The administration utility is generally used by the system administrators [for] configuring and managing the directory shell. The directory browser, is typically used by end users to search and view directories ...” *Appellant’s Specification*, p. 11, ll. 14-17.);

enabling the administrator utility to associate directory classes of two or more disparate directories into a single user-searchable category (The administrator utility allows the administrator to disable or enable searching on a directory class by various mechanisms, such as checking a box (or not) under an Enabled Column of a table 122, Figure 4, for example. E.g., *Appellant’s specification*, p. 12, l. 30 et seq.); and

from the directory browser, enabling direct searching of the directory classes of the two or more disparate directories with a single query of the single user-searchable category (The “directory shell is queryable against the categories and category attributes to search and retrieve data of the objects in the directories.” *Appellant’s Specification*, p. 5, ll. 20-22. User searching occurs, for example, via a query portion 210 of the directory browser

shown as a page 100 or 200 in Figures 8, 9 or 10. *E.g., Appellant's Specification, p. 17, ll. 12-15.* Results of the search are displayed in a variety of panels 220, 230 on the same page. *Id.*).

In independent claim 32, and consistent with Figures 1, 2, 4 and 8, for example, the below-quoted limitations of the claim, in **bold**, are representatively found in the specification at the parenthetical cite as follows:

32. **A computer system** (“Fig. 1 illustrates an example of a computer system of the present invention.” *Appellant's Specification, p. 6, l. 24.*), **comprising:**

a directory shell for loading on a computer in communication with one or more servers having two or more disparate directories each with a directory class, the directory class in one of the directories being dissimilar in directory objects and data from the directory class in another of the directories, the directory shell having an administrator utility and a directory browser (“A directory shell application 40 runs on the computer, which, for example, may have been received by the computer 40 on a computer readable medium or propagated signal. The directory shell 40 includes references to the directories 10 [e.g., 10a, 10b, 10c] and includes one or more categories.” *Appellant's Specification, p. 7, ll. 23-26.* The “directories 10a, 10b, and 10c are each maintained by directory servers 12a, 12b, and 12c, respectively.” *Appellant's Specification, p. 6, ll. 25-26.* The “directory shell 60 comprises one or more directory references 61. Each directory reference 61 is associated with a directory 50 and can include a variety of data specific to the directory 50.” *Appellant's Specification, p. 8, ll. 23-26.* The “directories 50 each have a plurality of directory objects ... [in turn], instantiated from [their own] directory classes 51 ... [in turn, having] a plurality of [their own] class attributes 52 ... Object data 54 populates the class attributes 52 of an instantiated directory object 53.” *Appellant's Specification, p.*

8, ll. 14-20. The directory shell 40 or 60 “includes two aspects: an administrator utility [e.g., page 100, Figure 4] and a directory browser [e.g., page 100, Figure 8]. The administration utility is generally used by the system administrators [for] configuring and managing the directory shell. The directory browser, is typically used by end users to search and view directories ...” *Appellant’s Specification, p. 11, ll. 14-17.*);

a table in the administrator utility configurable to associate the directory class in the one of the directories to the directory class in the another of the directories, the result of associating the directory classes being a user-searchable category (The “Directories panel 120 [of the administrator utility of page 100, Figure 4] provides a table 122 listing various directory references in the directory shell.” *Appellant’s Specification, p. 12, ll. 2-3.* An “Enable column of the table 122 provides a check box for each row, thus allowing an administrator to disable or enable searching on a directory.” *Appellant’s Specification, p. 12, ll. 30-31.* The “directory shell is queryable against the categories and category attributes to search and retrieve data of the objects in the directories.” *Appellant’s Specification, p. 5, ll. 20-22.*);

a query portion in the directory browser whereby users can directly search the directory classes of the two or more disparate directories with a single query of the user-searchable category (“Fig. 8 illustrates an example of a page associated with a directory browser or client. As shown in this example, the page 200 generally comprises three portions: a query portion 210... The query portion 210 comprises a variety of input options to format a query.” *Appellant’s Specification, p. 17, ll. 12-15.*); and

a panel in the directory browser where users can view search results of the single query (“Fig. 8 illustrates an example of a page associated with a directory browser or client. As shown in this example, the page 200 generally comprises three portions: a query portion 210, a list panel 220, and a details panel 230.” *Appellant’s Specification, p. 17, ll. 12-14.* The “list panel 220 presents a listing of the various directory objects satisfying the query.”

Appellant's Specification, p. 18, ll. 9-10. The “details panel 230 lists a more detailed information regarding the directory object selected in the list panel 220.” *Appellant's Specification, p. 18, ll. 13-15.*).

In independent claim 37, and consistent with Figures 1, 2, 4 and 8, for example, the below-quoted limitations of the claim, in **bold**, are representatively found in the specification at the parenthetical cite as follows:

37. A method of searching in a computer system (“Another aspect of the present invention is a method in a computer system.” *Appellant's Specification, p. 5, l. 3.*), **comprising:**

creating a single user-searchable category from directory classes of two or more disparate directories (Creating a directory shell with a single-query, user-searchable directory browser and an administrator utility, configured to link together disparate directories each with directory classes, results in creating a single user-searchable category from directory classes of two or more disparate directories. Support for the shell, browser and administrator utility include, for example,: “A directory shell application 40 runs on the computer, which, for example, may have been received by the computer 40 on a computer readable medium or propagated signal. The directory shell 40 includes references to the directories 10 [e.g., 10a, 10b, 10c] and includes one or more categories.” *Appellant's Specification, p. 7, ll. 23-26.* The “directories 10a, 10b, and 10c are each maintained by directory servers 12a, 12b, and 12c, respectively.” *Appellant's Specification, p. 6, ll. 25-26.* The “directory shell 60 comprises one or more directory references 61. Each directory reference 61 is associated with a directory 50 and can include a variety of data specific to the directory 50.” *Appellant's Specification, p. 8, ll. 23-26.* The “directories 50 each have a plurality of directory objects ... [in turn], instantiated from [their own] directory classes 51

... [in turn, having] a plurality of [their own] class attributes 52 ... Object data 54 populates the class attributes 52 of an instantiated directory object 53.” *Appellant’s Specification*, p. 8, ll. 14-20. The directory shell 40 or 60 “includes two aspects: an administrator utility [e.g., page 100, Figure 4] and a directory browser [e.g., page 100, Figure 8]. The administration utility is generally used by the system administrators [for] configuring and managing the directory shell. The directory browser, is typically used by end users to search and view directories ...” *Appellant’s Specification*, p. 11, ll. 14-17.); and

directly searching the directory classes of the two or more disparate directories with a single query of the user-searchable category, the directly searching substantially avoiding creating or using a virtual or other directory (During use, a typical example contemplates searching disparate or “different” directories that “potentially have different names for class attributes.” *Appellant’s Specification*, p. 14, l. 27. Representative “Cisco” and “Novell” corporate directories are given as disparate directories, including differing directory classes 51, that are searchable with a single query under an administrator-created user-searchable category 62 having the name “Find All.” *Appellant’s Specification*, p. 8, l. 13 - p. 9, l. 4. In turn, mapping or associating the differing directory classes 51 of the Cisco and Novell directories into a single user-searchable category 62 occurs, for example in a directory shell 60. In one embodiment, the “directory shell is queryable against the categories and category attributes to search and retrieve data of the objects in the directories.” *Appellant’s Specification*, p. 5, ll. 20-22. In another embodiment, “Fig. 8 illustrates an example of a page associated with a directory browser or client. As shown in this example, the page 200 generally comprises three portions: a query portion 210, a list panel 220, and a details panel 230.” *Appellant’s Specification*, p. 17, ll. 12-14. The “list panel 220 presents a listing of the various directory objects satisfying the query.” *Appellant’s Specification*, p. 18, ll. 9-10. The “details panel 230 lists a more detailed information regarding the directory object selected in the list panel 220.” *Appellant’s Specification*, p. 18, ll. 13-15. No

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intermediate virtual or other directories are necessary. Rather, direct searching of the two disparate directories occurs via the functionality of the administrator utility linking or associating them.).

VI. Grounds of Rejection to be Reviewed on Appeal

The Board must determine: 1) whether claims 21-27 and 32-36 are statutory under 35 U.S.C. §101, especially whether such produces a tangible and useful result; 2) whether claims 21 and 32 have a sufficient antecedent basis under 35 U.S.C. §112, second paragraph, for the limitation “the directory classes of two or more disparate directories;” 3) whether claims 21-41 are obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,470,332 to Weschler in view of U.S. Patent No. 6,260,039 to Schneck et al.; 4) whether Weschler and Schneck are properly combined; and 5) whether the Examiner has met her *prima facie* burden.

To the extent the Board’s determination finds the above in favor of the Appellant, the entirety of the claims should be adjudicated patentable in view of the pending rejections.

VII. Argument

- A. Claims 21-41 are not rendered obvious over Weschler in view of Schneck. Weschler insists on multiple searches with multiple queries, while Schneck avoids searching disparate directories. The present invention, on the other hand, enables searching of two or more disparate directories with a single query.**

As the law has long held, the proper test of obviousness is whether the differences between the invention and the prior art are such that “the subject matter as a whole would have been obvious at the time the invention was made” to a person skilled in the art. *Stratoflex Inc. V. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983)(Underlining added). It is now over five full years since filing. The Appellant also reminds of the caution expressed by the Court of Appeals for the Federal Circuit that “[d]etermination of obviousness can not be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the [] invention.” *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 536 (Fed. Cir. 1998). However, it appears the Examiner’s position of obviousness is nothing more than the cautioned-against selective culling from the references in an attempt to fit the limitations of the claims. Not that the Examiner has fit the limitations, but rejections of this sort are clearly discouraged under the law.³

Weschler concerns itself with a “system, method and computer program product for searching for, and retrieving, profile (or directory) attributes based on other attributes of the target profile and that of associated profiles.” *Abstract*. In concrete embodiments, this amounts, first, to “specification of a sequence of [plural] query strings.” *Col. 9, ll. 49-50*. It amounts, second, to executing a first of the queries and placing the results in a “set of candidates profiles.” *Col. 9, ll. 53*. From there, “the results are ‘candidates’ for the next query of the series.” *Col. 9, ll. 7-8*. The process then repeats one or more times, e.g., steps

³As is well established, “virtually all [inventions] are combinations of old elements.” *Ruiz v. A.B. Chance Co.*, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004). Also, an obvious determination under 35 U.S.C. 103(a) requires an “as a whole” analysis of the prior art to otherwise prevent an impermissible “evaluation of the invention part by part.” *Id.* For otherwise, “an obviousness assessment might break an invention into its component parts (A+B+C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious.” *Id.* In turn, “this form of hindsight reasoning, using the invention as a roadmap to find its prior components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention.” *Id.*

410 - 416, Figure 4. As compared to conventional Lightweight Directory Access Protocol (LDAP) searching, which “can query only a single directory at a time,” *col. 9, ll. 3-4*, Weschler teaches systems and methods:

operational to execute a first query of a sequence of queries to determine if one or more profiles matches the first query. If one or matches are found, the results then are "candidates" for the next query of the series. Consequently, before any results are reported back for the first query, the subsequent queries proceed further down a "tree" structure in relationship to further profiles relative to any candidate profiles matched initially to determine if they too match the subsequent query strings in the sequence of queries that has been specified. *Col. 9, ll. 5-14.*

Weschler gives a representative example of his process whereby a query labeled “Query 3” includes first “(TYPE=USER)” and second (“TYPE=NET)(EMAIL~=SUN).”

Figure 3. During searching, it is the situation that after execution of the first query for TYPE=USER, “profiles 304, 306, 308 and 310 are all [potential] candidates” of the whole query. *Col. 9, ll. 32-33.* However, there are no search results for the user at this point in time and so the second or additional query is executed in order to eventually zero-in on the sub-profile labeled 316. Importantly, this means that even if a single query were used in Weschler, inoperability is the result. That is, no search results are obtainable from a single query and such cannot then be useful in rendering the claims obvious.

Moreover, Weschler recites convenient examples with search terms that are clearly consistent with one another in terms of directory classes. Namely, Weschler unequivocally teaches a zip code as “ZIP” and a location as “LOCALE.” *E.g., Figure 3.* However, if one directory hypothetically labeled the zip code as “ZIP” and another labeled it as “MAIL CODE,” or one directory labeled the location as “LOCALE” while another labeled it as “COUNTRY,” the convenience given by Weschler would be negated. That is why the

instant invention⁴ further provides “a directory shell” whereby an administrator can “configure” the “ZIP” of the one directory to the “MAIL CODE” of the other, or the “LOCALE” of the one directory to the “COUNTRY” of the other, into a “user-searchable category.” In turn, users can search the zip code of both the “ZIP” and the zip code of the “MAIL CODE,” or the location of both the “LOCALE” and the location of the “COUNTRY,” with “a single query” in “a directory browser” and find the appropriate zip code or location search results, as the case may be. Nowhere does Weschler teach this. Because Weschler also does not present any scenario other than a consistent “ZIP” or “LOCALE,” for example, Weschler does not even appreciate the context of the instant invention. It cannot then hint at the capabilities of the present invention. To this end, the Applicant agrees with the Examiner’s assertion that Weschler “does not clearly teach a directory browser with the directory shell whereby users can search the directory classes with a single query of the user-searchable category.” *E.g., 5-2-06 Office Action, p. 3, 3rd ¶, and 10-02-06 Office Action, p. 4, 1st full ¶.*

The Weschler reference also does not solve the same problem as the present claims either. As before, Weschler is intended as a method of searching data, where the results of a first of a sequence of multiple queries are used as the candidates for the following query of the multiple of queries, and the results of the following query are used in still the next query, and so on. The present invention, however, does not care about multiple queries, but a single query for searching disparate directories. For instance, each of the claims require the notion that an administrator utility is configurable to associate directory classes of two or more disparate directories so that users can search the disparate directories with a single query. The utility also preferably resides with a directory shell and users search from a directory browser. Nowhere, does Weschler alone or in combination teach this.

⁴ The claim language in this discussion comes from representative claim 21. Of course, the other claims are precisely defined by their own words and nothing is to be inferred.

Schneck does not provide the missing teaching. Schneck concerns itself with a “Web to X.500 Gateway” 100 that interfaces between either an administrative or user access point (in the form of an admin interface 106 or web browser 108, respectively) and a X.500 distributed system agent 104, storing items such as information about people, products or resources. In one instance, users search a directory of information to find people via their name, such as “Jane Doe,” or title, such as “Manager.” *Figures 15B, 15C.* In other instances, users search the directory to find “John Doe” via a search of an organization name, such as “XYZCorp,” and an organizational unit, such as “Sales.” *Figures 5-7.* In this regard, various mapping schemes 212 are used.

At no time, however, does Schneck teach searching of disparate directories each having a directory class with dissimilar directory objects and data as representatively required in claim 1 of the instant invention, for example. Rather, Schneck exclusively teaches searching within a single directory typified by a root and various sequenced nodes as representatively seen in Schneck’s Figures 5-7. In turn, Schneck is unable (while the present invention is able) to search for people, for example, listed as “SALES” in Schneck’s one directory and “SALESPERSONS” in a second, completely disparate directory. The present invention even enables it in a single query after administrators associate the “SALES” and the “SALESPERSONS” together in an administrator utility having a directory shell. As to Schneck’s searching in a single directory, the Appellant submits this is well known. It is also discussed generally in relation to directory hierarchy in the Appellant’s specification in the Background section at pages 2-4.

For at least these reasons, the Appellant submits the patentability of claims 21-41 over Weschler in combination with Schneck. Individually, each of the pending claims define themselves over both references for one or more of the reasons given hereafter.

Claim 21: This claim requires a directory shell able to reference two or more disparate directories. The shell includes both an administrator utility and directory browser.

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The utility is configurable to “associate” the directory classes of the two or more disparate directories into “a user-searchable category.” The browser is then a structure where users search the directory classes of the two or more disparate directories with “a single query” of the user-searchable category. Weschler and Schneck, alone or in combination, do not render this obvious. Weschler insists on multiple queries to accomplish searching while Schneck insists on exclusively searching within a single directory.

Claims 22-27: These claims depend from claim 21 and further require nuances of the system. Namely, they specify the whereabouts of the two or more disparate directories and the directory shell (claim 22); they describe structure that sends the single query and allows communication between the structure and the disparate directories (claims 23 and 24); they describe the category as including a category attribute mapped to class attributes of the directory class (claim 25); and they define where search results are displayed in the browser and where associating occurs in the utility (claims 26 and 27). Weschler and Schneck, however, fail as references in this regard, especially considering the limitations of parent claim 21.

Claim 28: This claim describes methodology of “providing” the directory shell to “enable” the administrator utility to associate directory classes of two or more disparate directories into a single user-searchable category. Searching of the category then occurs from a directory browser of the shell. Searching is also done in a “direct” manner with a “single” query. Weschler, however, requires multiple queries. Schneck avoids disparate directories.

Claims 29 and 30: These claims relate to specifying how the utility of claim 28 is enabled to associate directory classes and to displaying search results in a panel of the browser. Neither Weschler nor Schneck intimate any such features, especially since these claims further include the features of claim 28.

Claim 31 relates to computer readable media having executable instructions for performing the methodology of claim 28.

Claim 32: This claim is similar to claim 21 and is patentable for the reasons given above. However, it further builds on claim 21 and requires a table, a query portion and a panel in the utility and browser for associating, searching and displaying search results. Weschler and Schneck are far short of rendering this obvious. Neither reference teaches a table, a query portion, or a panel in the utility and browser for associating, searching and displaying search results.

Claims 33-36: More narrowly, these claims build on claim 32 and particularly specify panels for the browser, check boxes for associating, an enable column in the table and an HTML format for both the utility and browser.

Claim 37: This claim requires the creation of a single user-searchable category from directory classes of two or more disparate directories and an ability to “directly” search these classes with a “single query” of the category. Negatively, the claim further requires the absence of any creation or use of a virtual “or other” directory. Weschler clearly teaches multiple queries to satisfy various search results and Schneck is incapable of searching disparate directories. (From earlier references during prosecution, Gopal is quite incapable of searching without further establishing or creating a “linking” directory 300.) The combination of references must fail.

Claims 38-40: These claims all relate to how a category of claim 37 is created. In one aspect, “the creating” further includes associating directory classes in the utility (claim 38). In another, it relates to creating more than one category (claim 39). In still another, it requires providing a directory shell for loading on a computer in communication with servers having the disparate directories (claim 40).

Claim 41 relates to computer readable media having executable instructions for performing the methodology of claim 37.

B. Even if Weschler and Schneck are properly combined, and the Appellant contends they are not, the two references do not result in the invention of claims 21-41.

1. Weschler and Schneck teach away from one another.

At a minimum, Weschler teaches away from single directory searching and its pitfalls. As before, in comparison to conventional Lightweight Directory Access Protocol (LDAP) searching, which “can query only a single directory at a time,” *col. 9, ll. 3-4*, Weschler teaches systems and methods:

operational to execute a first query of a sequence of queries to determine if one or more profiles matches the first query. If one or matches are found, the results then are "candidates" for the next query of the series. Consequently, before any results are reported back for the first query, the subsequent queries proceed further down a "tree" structure in relationship to further profiles relative to any candidate profiles matched initially to determine if they too match the subsequent query strings in the sequence of queries that has been specified. *Col. 9, ll. 5-14.*

Schneck, in contrast, relates exclusively to single directory searching at a given time. Why then would skilled artisans examine such diametrically opposed teachings to arrive at the present invention? The answer is they would not. For this reason alone, obviousness cannot be established and the Examiner’s rejection fails. *See, e.g., Winner International Royalty Corp. v. Wang*, 202 F.3d 1340, 53 USPQ2d 1580, 1587 (Fed. Cir. 2000)(If a first reference “did in fact teach away from [a second reference], then that finding alone can defeat [an] obviousness claim” based on a combination of the two references.); and *In re Haruna*, 249 F.3d 1327, 1335, 58 USPQ2d 1517, 1522 (Fed. Cir. 2001)((“A prima facie case of obviousness can be rebutted if the applicant . . . can show ‘that the art in any material

respect taught away' from the claimed invention.”)(quoting *In re Geisler*, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997)).

2. The Combination of Weschler and Schneck never reveal a user searchable category by way of an administrator utility that associates disparate directories together so that users can search the directory classes of two or more disparate directories with a single query, as in claims 21-41.

Even assuming skilled artisans would somehow decide to combine the multi-query, multi-directory searching of Weschler with the single directory searching of Schneck, how do these same skilled artisans then arrive at a single user-searchable category of the instant invention, for searching multiple disparate directories with a single search? The answer is, they do not and cannot.

As is clear, Weschler's technique comprises:

the steps of specifying a sequence of query strings for the directories, applying each of the sequence of query strings to the directories, determining candidate ones of the directories comprising matches to a first of the sequence of query strings, iteratively applying remaining ones of the sequence of query strings to the candidate ones of the directories and returning a result set of data representative of the candidate ones of said directories having matched each of the specified sequence of query strings. *Col. 5, ll. 54-63.*

In turn, Weschler gives a representative example of this process whereby a query would first search a zip code as “ZIP” or a location as “LOCALE” and then conduct later processing after first matches of the first query were obtained. *E.g., Figure 3.* However, if one directory labeled the zip code as “ZIP” for the first query and another labeled it as

“MAIL CODE,” or one directory labeled the location as “LOCALE” for the first query while another labeled it as “COUNTRY,” Weschler would not and could not get to the second search since they would have no results from the first search.⁵ In other words, they would have no common user searchable category that could be searched together and Weschler’s effects would clearly be negated.

That is why the instant invention in claims 21 and 32 further provide “a directory shell” whereby an administrator can “configure” the “ZIP” of the one directory to the “MAIL CODE” of the other, or the “LOCALE” of the one directory to the “COUNTRY” of the other, into a “user-searchable category.” In turn, users can search the zip code of both the “ZIP” and the zip code of the “MAIL CODE,” or the location of both the “LOCALE” and the location of the “COUNTRY,” with “a single query” in “a directory browser” and find the appropriate zip code or location search results, as the case may be. In claim 28 the invention provides the step of enabling the administrator utility to associate the directory classes of the disparate directories together into a single user-searchable category, while claim 37 provides the step of creating the single user-searchable category from the directory classes.

Nowhere does Weschler teach this (probably because it has no need of teaching it since its searching is iterative from one class to the next). Because Weschler also does not present any scenario other than a consistent “ZIP” or “LOCALE,” for example, Weschler does not appreciate the context of the instant invention. It cannot then even hint at the capabilities of the present invention.

The same is similarly true of Schneck. As before, Schneck is unable to search for people, for example, listed as “SALES” in Schneck’s one directory and “SALESPERSONS” in a second, completely disparate directory. However, the present invention could enable a

⁵ However, to the extent they searched “ZIP,” first, and “MAIL CODE,” second, or “LOCALE,” first, and “COUNTRY,” second, this further results in multiple searches by way of multiple queries and such is also not found in the present invention as claimed.

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single query of both after administrators associated the “SALES” employees and the “SALESPERSONS” employees together in a single user searchable category, such as “SALES EMPLOYEES,” by way of an administrator utility having a directory shell.

C. The Examiner fails to meet her burden of establishing obviousness in rejecting claims 21-41.

As longstanding precedent, the initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention on any ground is always on the examiner. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). However, it appears the Examiner’s legal position in the instant matter relates exclusively to a faulty motivation to combine the references.

First, the Examiner asserts the motivation or suggestion to combine Weschler and Schneck relates to the nature of the problem to be solved. Namely, the motivation to combine the two relates to providing Weschler with an “administrative interface … for the purpose of to [sic] displaying, retrieving, searching and protecting system resources, thereby, helping to providing [sic] a web interface for accessing directory [sic].” *10-02-06 Office Action*, p. 5, 1st ¶.

Weschler, however, already accounts for scenarios of a “profile manager interface” and need not look to Schneck for any reason, much less its administrative interface.

Second, the Appellant agrees the law allows for examining the nature of the problem to be solved when determining motivation.⁶ However, the instant invention does not simply address solving a problem of “providing a web interface for accessing directories.” Rather,

⁶ “A suggestion or motivation to modify prior art teachings may appear in the context of the public prior art, in the nature of the problem addressed by the invention, or even in the knowledge of one of ordinary skill in the art.” *Underlining added*, *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 04-1493, 6/9/2005, 411 F.3d 1332 (Fed. Cir. 1995).

the instant invention broadly relates to enabling an administrator via a mechanism, e.g., administrator utility, to conveniently associate disparate directories with one another so that user's can search the then-associated directories with a single search. More narrowly, the instant invention relates to features of the utility, a browser by which the users search, and to a directory shell able to reference the multiple disparate directories. In turn, users of the instant invention have no idea about the disparity of the directories because an administrative role is used to associate the disparities together into a user-searchable category that users then search with a single query. In fact, users do not need to know that "JOHN DOE" in one directory is labeled a "NAME" while in another is labeled an "IDENTITY." All users need to know is searching occurs in a single user-searchable category. The Examiner, thus, identifies an erroneous motivation for combining the references and together they fail. Ultimately, it is overstated to characterize the nature of the problem to be solved as relating to "providing a web interface for accessing directories" or providing an "administrative interface ... for the purpose of to [sic] displaying, retrieving, searching and protecting system resources." The claims themselves are much more narrow in focus and relate precisely to the relationships of the parties involved in the computing environment.

Third, the Court of Appeals for the Federal Circuit has warned that, "*simply identifying all of the elements in a claim in the prior art does not render a claim obvious.*" *Ruiz*, 357 F.3d at 1275. Some quantum of proof is certainly required. *Id.* To the extent the Examiner has identified all the elements of any one claim, although the Appellant strongly asserts this has not occurred, the Examiner has so far only offered proof of motivation to combine Weschler and Schneck by contending (without substantiation) that it is desirable to provide Weschler with an "administrative interface ... for the purpose of to [sic] displaying, retrieving, searching and protecting system resources, thereby, helping to providing [sic] a web interface for accessing directory [sic]." *10-02-06 Office Action, p. 5, 1st ¶.* However, this assertion is rawly given and merely represents what the Examiner thinks a skilled artisan

would have thought about the instant invention over five years ago. It is also a scant assertion with little, if any, underlying support.

D. Claims 21 and 32 have sufficient antecedent basis under 35 U.S.C. §112, second paragraph, for the limitation “the directory classes of two or more disparate directories” in lines 9-10 of claim 21 and 10-11 of claim 32.

As seen in the Claims Appendix, a directory shell contemplates “two or more disparate directories,” with “each” directory having “a directory class.” *Claim 21, ll. 2-3 and claim 32, l. 3*. In turn, a claim with “two or more disparate directories ‘each’ with a directory class” yields more than one directory class and sufficient antecedent basis exists for the claim limitation “the directory ‘classes’ of two or more disparate directories.” In other words, a claim element of two or more of X, in turn, with “each” of the X having a Y, yields two or more of Y. For at least this reason, the claims are submitted as sufficiently definite.

E. Claims 21-27 and 32-36 are statutory subject matter under 35 U.S.C. §101. Among other things, they produce tangible and useful results.

The Examiner contends claims 21-27 and 32-36 violate the strictures of 35 U.S.C. §101 because they “are software per se.” *10-02-06 Office Action, p. 2, 3rd ¶*. Also, since they are “not hardware processes” they “[do] not produce a tangible and useful result.” *Id.*

According to the law, four categories of inventions are defined, e.g., processes, machines, manufactures and compositions of matter. As mentioned under *MPEP §2106*, for example, the latter three categories define “things” or “products,” while the first category, “processes,” define “actions” (i.e., inventions that consist of a series of steps or acts to be performed.) Also, the U.S. Supreme Court has interpreted 35 U.S.C. §101 as broadly

including “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 US 303, 308-309, 206 USPQ 193, 197 (1980). Despite the seeming breadth of such an interpretation, it is more narrowly anything under the sun, made by man, other than the “laws of nature, natural phenomena, and abstract ideas.” *Diamond v. Diehr*, 450 US 175, 185 (1981). The ultimate issue must also be dissected according to “whether the claim *as a whole* is drawn to statutory subject matter.” *Emphasis added, AT&T Corp. v. Excel Communications Inc.*, 50 USPQ2d 1447, 1451 (Fed. Cir. 1999) (citing to *In re Alappat*, 33 F3d. 526, 31 USPQ2d 1545 (Fed. Cir. 1994), among other cites.).

In the present invention, however, nothing realistically can be construed as a law of nature, a natural phenomena or an abstract idea. Rather, the invention, as a whole, requires “a computer system” including “a directory shell” having both “an administrator utility” and “a directory browser.” In turn, the utility contemplates “associat[ing] the directory class in the one of the directories to the directory class in the another of the directories, the result of associating the directory classes being a user-searchable category,” while the browser provides a structure “whereby users can search the directory classes of the two or more disparate directories with a single query of the user-searchable category.” Claim 32 even provides for “a table” in the utility configured to enable the associating of disparate directory classes and “a query portion” and “a panel” in the browser to actually conduct the search and view the results, respectively. In this manner, searching convenience of dissimilar directories is made convenient, thereby providing not only a useful result, but a tangible one.

As before, the Appellant’s specification illustrates this as searching disparate or “different” directories that “potentially have different names for class attributes.” *Appellant’s Specification*, p. 14, l. 27. Representative “Cisco” and “Novell” corporate directories are given as disparate directories, including differing directory classes 51, that are searchable with a single query under an administrator-created user-searchable category 62 having the name “Find All.” *Appellant’s Specification*, p. 8, l. 13 - page 9, l. 4. In turn,

mapping or associating the differing directory classes 51 of the Cisco and Novell directories into a single user-searchable category 62 occurs, for example in a directory shell 60. In one embodiment, the “directory shell is queryable against the categories and category attributes to search and retrieve data of the objects in the directories.” *Appellant’s Specification*, p. 5, ll. 20-22. In another embodiment, the directory shell 60 “includes two aspects: an administrator utility and a directory browser.” *Appellant’s Specification*, p. 11, ll. 14-15. The administrator utility allows the administrator to disable or enable searching on a directory class by various mechanisms, such as checking a box (or not) under an Enabled Column of a table 122, for example. E.g., *Appellant’s Specification*, p. 12, l. 30 *et seq.* User searching occurs, for example, via a query portion 210 of the directory browser shown as a page 200 in Figure 8. Results of the search are displayed in a variety of panels 220, 230 on the same page.

For at least this reason, the Appellant submits the claims are sufficient as written and in a condition for allowance.

F. Conclusion

The Appellant submits that: (1) all claims are in a condition for allowance; (2) all claims are statutory under 35 U.S.C. §101; (3) claims 21 and 32 have a sufficient antecedent basis under 35 U.S.C. §112, second paragraph, for the limitation “the directory classes of two or more disparate directories;” and (4) claims 21-41 are non-obvious variants under 35 U.S.C. §103(a) regarding U.S. Patent No. 6,470,332 to Weschler in view of U.S. Patent No. 6,260,039 to Schneck et al. Accordingly, it is respectfully requested that the rejections of the pending claims be reversed and the application be remanded to the Examiner for allowance.

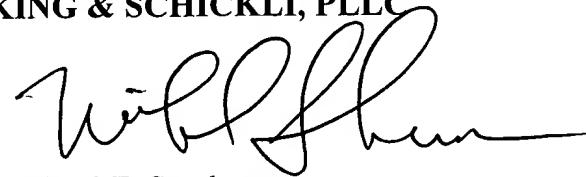
To the extent any fees are due beyond those authorized in the originally filed fee transmittal for filing a Notice of Appeal and Appeal Brief in support thereof under 37 C.F.R.

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§§41.20(b)(1) and (b)(2), the undersigned authorizes their deduction from Deposit Account No. 11-0978.

Respectfully submitted,

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Date Jan. 30, 2007 by Edo T. Tracy

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VIII. CLAIMS APPENDIX

The claims on Appeal include 21-41. Of those, all remain as previously presented.

Claims 1-20 have long ago been canceled.

The Listing of claims:

Claims 1-20 (Canceled).

21. (Previously Presented)

A computer system, comprising:

a directory shell able to reference two or more disparate directories each having a directory class, the directory class in one of the directories being dissimilar in directory objects and data from the directory class in another of the directories;

an administrator utility with the directory shell configurable to associate the directory class in the one of the directories to the directory class in the another of the directories, the result of associating the directory classes being a user-searchable category; and

a directory browser with the directory shell whereby users can search the directory classes of the two or more disparate directories with a single query of the user-searchable category.

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22. (Previously Presented) The computer system of claim 21, wherein the two or more disparate directories are managed on a plurality of servers in communication with a computer onto which the directory shell is loaded.

23. (Previously Presented) The computer system of claim 21, further including a directory interface operable to send the single query to the two or more disparate directories.

24. (Previously Presented) The computer system of claim 23, further including a director driver for each of the two or more disparate directories to allow the directory interface to communicate therewith.

25. (Previously Presented) The computer system of claim 21, wherein the user-searchable category includes a category attribute mapped to one or more class attributes of the directory class.

26. (Previously Presented) The computer system of claim 21, wherein the directory browser includes one of a list panel and a details panel where users can view search results of the single query.

27. (Previously Presented) The computer system of claim 21, wherein the

administrator utility further includes a table for associating the directory class in the one of the directories to the directory class in the another of the directories.

28. (Previously Presented) A method of searching in a computer system, comprising:
providing a directory shell with an administrator utility and a directory browser for loading onto a computer;
enabling the administrator utility to associate directory classes of two or more disparate directories into a single user-searchable category; and
from the directory browser, enabling direct searching of the directory classes of the two or more disparate directories with a single query of the single user-searchable category.

29. (Previously Presented) The method of claim 28, wherein the enabling further includes mapping a category attribute of the single user-searchable category to one or more class attributes of the directory class.

30. (Previously Presented) The method of claim 28, further including displaying search results of the single query on a panel of the directory browser.

31. (Previously Presented) A computer readable media having computer-executable instructions for performing the steps recited in claim 28.

32. (Previously Presented) A computer system, comprising:

a directory shell for loading on a computer in communication with one or more servers having two or more disparate directories each with a directory class, the directory class in one of the directories being dissimilar in directory objects and data from the directory class in another of the directories, the directory shell having an administrator utility and a directory browser;

a table in the administrator utility configurable to associate the directory class in the one of the directories to the directory class in the another of the directories, the result of associating the directory classes being a user-searchable category;

a query portion in the directory browser whereby users can directly search the directory classes of the two or more disparate directories with a single query of the user-searchable category; and

a panel in the directory browser where users can view search results of the single query.

33. (Previously Presented) The computer system of claim 32, wherein the query portion and the panel are on a same page of the directory browser.

34. (Previously Presented) The computer system of claim 32, wherein the table includes one or more check boxes for the associating of the directory classes.

35. (Previously Presented) The computer system of claim 32, wherein the table includes an enable column to indicate directory classes associated with the user-searchable category.

36. (Previously Presented) The computer system of claim 32, wherein the administrator utility and directory browser is formatted to be displayed in HTML format.

37. (Previously Presented) A method of searching in a computer system, comprising:
 creating a single user-searchable category from directory classes of two or more disparate directories; and
 directly searching the directory classes of the two or more disparate directories with a single query of the user-searchable category, the directly searching substantially avoiding creating or using a virtual or other directory.

38. (Previously Presented) The method of claim 37, wherein the creating further includes associating, in an administrator utility, the directory class in the one of the directories to the directory class in the another of the directories.

39. (Previously Presented) The method of claim 37, wherein the creating further includes creating additional user-searchable categories for additional directory classes of the

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two or more directories.

40. (Previously Presented) The method of claim 37, wherein the creating further includes providing a directory shell for loading on a computer in communication with one or more servers having the two or more disparate directories.

41. (Previously Presented) A computer readable media having computer-executable instructions for performing the steps recited in claim 37.

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IX. EVIDENCE APPENDIX

None

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X. RELATED PROCEEDINGS APPENDIX

None